

Ares Projects Office Progress Update

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Presentation Abstract

NASA's Vision for Exploration requires a safe, reliable, affordable launch infrastructure capable of replacing the Space Shuttle for low Earth orbit transportation, as well as supporting the goal of returning humans to the moon. This presentation provides an overview of NASA's Constellation program and the Ares I and Ares V launch vehicles, including accomplishments and future work.

National Aeronautics and Space Administration



Ares Projects Office Progress Update

Teresa Vanhooser

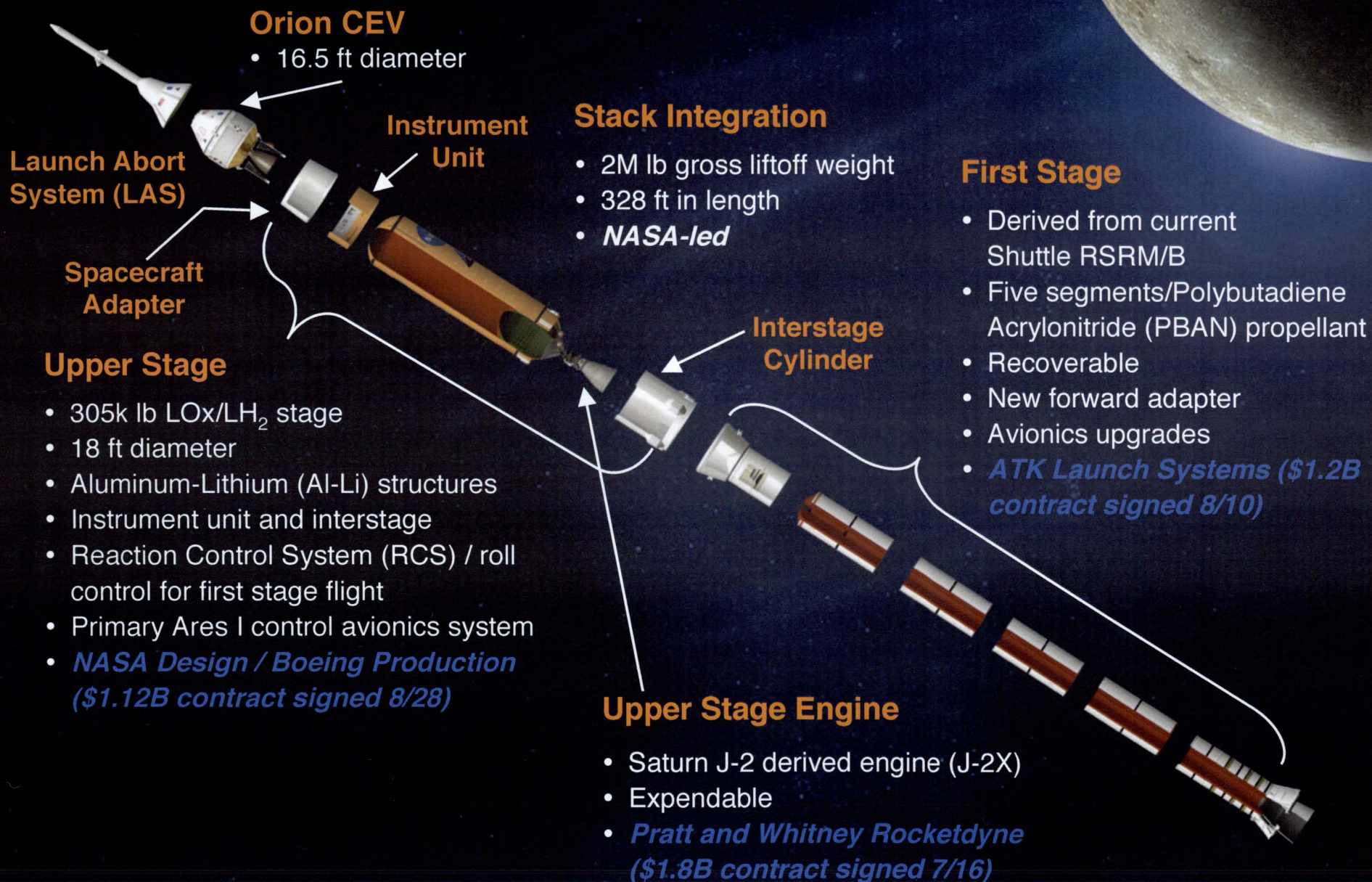
Deputy Director, Ares Projects Office

Today's Journey



- ◆ **Where We Are**
- ◆ **A Nationwide Partnership**
- ◆ **Ares I Progress Since System Requirements Review**
 - Vehicle Integration
 - First Stage
 - Upper Stage
 - Upper Stage Engine
- ◆ **The Challenges Ahead**

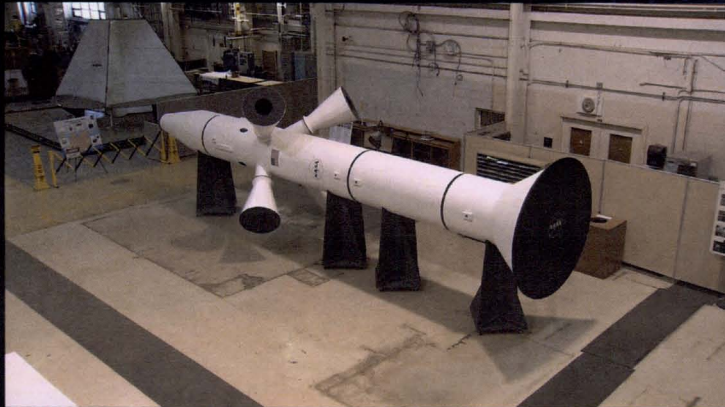
Over \$4B in New Procurements



A Nationwide Partnership



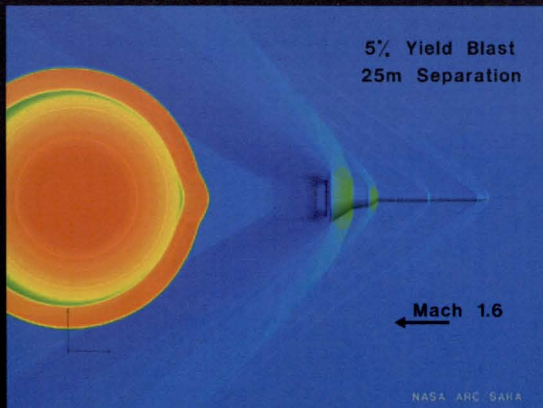
Vehicle Integration



LAS Mock-up



MSFC Systems Integration Lab



Abort Simulations

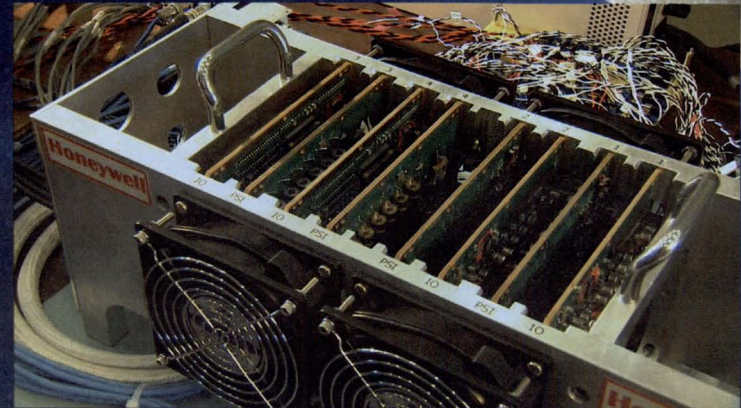


2,500+ Wind Tunnel Tests

First Stage



SRM Test Firing



Nozzle Actuator Tests

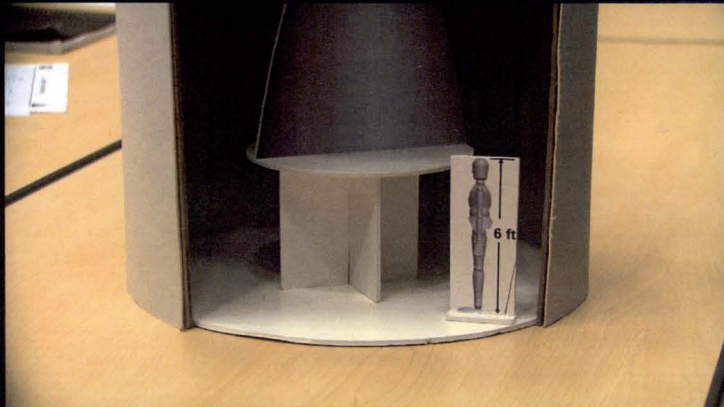
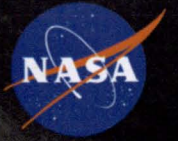


New SRM Insulation

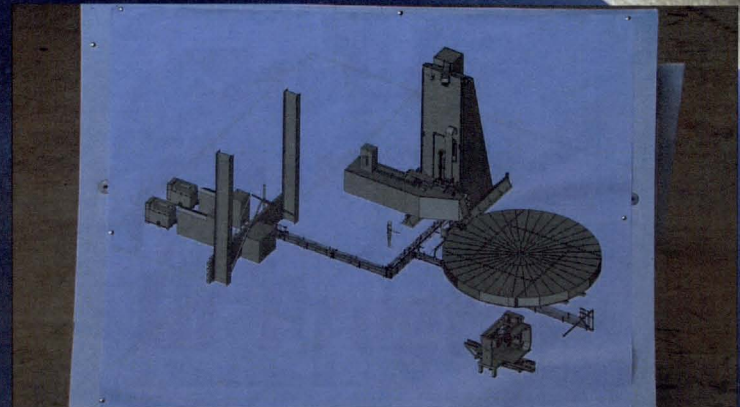


Parachute Drop Test

Upper Stage



Full-scale Interstage Mock-up



Friction Stir Weld Facility



Confidence Panel Evaluation

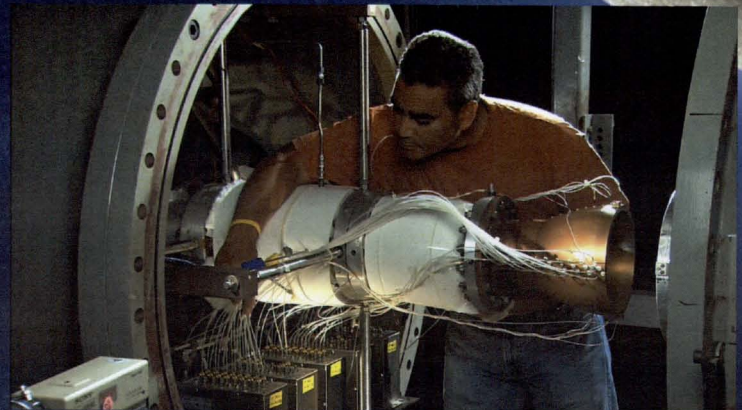


**Saturn IVB Vent Relief Valve
Disassembly**

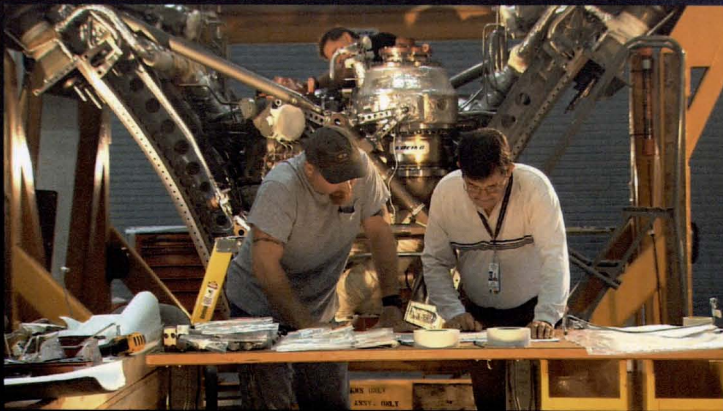
Upper Stage Engine



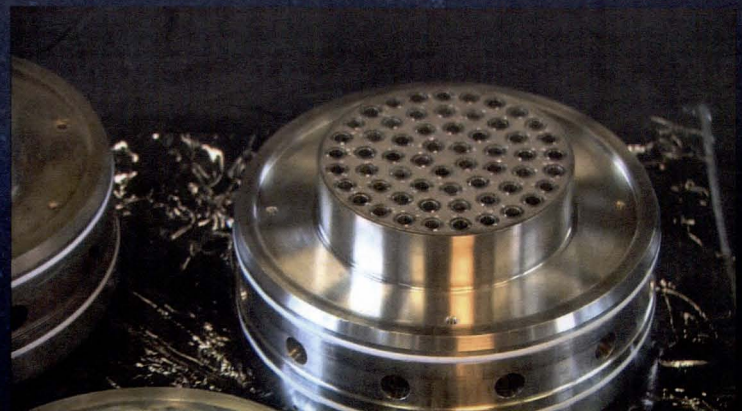
LOX Inducer Testing



Cold-flow Nozzle Side Loads Testing

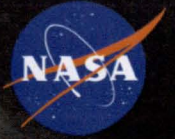


Powerpack Disassembly/Installation



Subscale Injector Testing

The Challenges Ahead



◆ The Latest Milestone: System Definition Review

- Kick-off conducted September 10
- Standing Review Board participation
- Review board for final dispositions scheduled for October

◆ Instrument Unit contract award

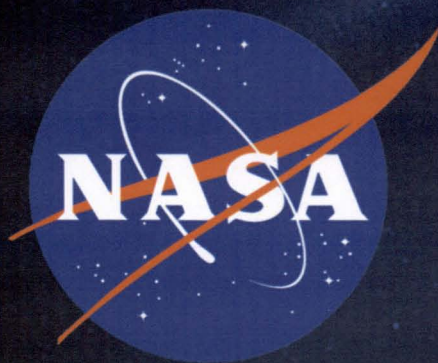
- Scheduled for the December 2007 time frame

◆ Preliminary Design Review

- Currently slated for mid-2008

◆ Ares I-X Test Flight

- On track for April 2009 launch
- Ground vibration testing ongoing
- Hardware fabrication underway



www.nasa.gov/ares